

7. ABSTRACT

An object of disclosed technology is to control lasing wavelengths so that a wavelength shift does not occurs. Another object is to permit wavelengths of a light source for wavelength division multiplexing optical-fiber communication system to be variable in response to an ITU-TS grid. A means for achieving the objects is as follows: locating an etalon in a light path of diode laser light, which is a parallel plane wave changed by a collimator lens; generating a wavelength error signal from a difference between both of divided pieces of light from transmitted light or reflected light; and locking a wavelength of a diode laser device according to the wavelength error signal.